Claims

[c1]

1. A valve arrangement suitable for use with a rotary peristaltic pump and which is capable of allowing a flow of fluid in a first direction and capable of preventing the flow of fluid in a second direction, wherein the valve arrangement comprises a valve having a cracking pressure of approximately 0.10 to about 0.20 bar.

[c2]

2. The valve arrangement of Claim I wherein the cracking pressure is about 0.15 bar.

[c3]

3. The valve arrangement of Claim 1 wherein the valve comprises a flexible membrane which is deformable under pressure in a desired flow direction.

[c4]

4. The valve arrangement of Claim 3 wherein the flexible membrane includes at least one perforation which opens at a selected extent of deformation of the flexible membrane to permit flow therethrough.

[c5]

5. The valve arrangement of Claim 3 wherein the valve has a support associated with the flexible membrane for limiting the deformation of the flexible membrane in a direction opposite the flow direction thereby preventing back flow.

[c6]

6. The valve arrangement of Claim 1 wherein the valve includes a piston member having a mushroom shaped head.

[c7]

7. A device for the administration of at least one fluid to a patient comprising:

a valve arrangement including a member that is deformable under pressure in a desired flow direction and having a cracking pressure of approximately 0.10 to about 0.20 bar;

an inlet tube for providing, at least in part, a fluid flow path between a container and an inlet port of the valve arrangement; and

an outlet tube for providing, at least in part, a fluid flow path between an outlet of the valve arrangement and a patient.

[c8]	8. The device of Claim 7 wherein the valve arrangement is coupled to a
	rotary peristaltic pump.
[c9]	9. The device of Claim 7 wherein the valve comprises a flexible
	membrane which is deformable under pressure in a desired flow direction.
[c10]	10. The device of Claim 9 wherein the flexible membrane includes at
	least one perforation which opens at a selected extent of deformation of the
	flexible membrane to permit flow therethrough.
[c11]	11. The device of Claim 9 wherein the valve has a support associated
	with the flexible membrane for limiting the deformation of the flexible
	membrane in a direction opposite the flow direction thereby preventing back
	flow.
[c12]	12. A method for manufacturing a valve arrangement for use in a
	medical device for delivering a fluid to a patient comprising the steps of
	producing a chamber having an inlet port and an outlet port, locating within
	the chamber a one way valve between the inlet port and the outlet port for
	allowing fluid to flow in only one direction, and having a cracking pressure of
	approximately 0.10 to about 0.20 bar.
[c13]	13. The method of Claim 12 wherein the valve comprises a flexible
	membrane which is deformable under pressure in a desired flow direction
	and the flexible membrane includes at least one perforation which opens at a
	selected extent of deformation of the flexible membrane to permit flow
	therethrough.
[c14]	14. A method of providing a fluid to a patient comprising the steps of
	administering an effective amount of a fluid via a valve arrangement having a
	cracking pressure of approximately 0.10 to about 0.20 bar.
[c15]	15. The method of Claim 14 wherein the fluid provides nutrition to the
	patient.
[c16]	16. A method of Claim 14 wherein the fluid provides complete nutrition

to the patient.

[c17]

17. A method of treating a patient comprising the steps of administering a fluid from a container to a patient using a pump to propel the fluid via a valve arrangement having a cracking pressure of approximately 0.10 to about 0.20 bar.

[c18]

18. The method of Claim 17 wherein the valve arrangement is coupled to a peristaltic pump.

[c19]

19. A device for controlling the flow of a fluid from a container to a patient including a valve arrangement that is so constructed and arranged to prevent the flow of fluid to a patient at certain conditions, allow the flow of fluid to a patient at a cracking pressure, and allow a certain level of a free flow of fluid to the patient.

[c20]

20. The device of Claim 19 wherein the cracking pressure is approximately 0.10 to about 0.20 bar.